# Special Articles and Association Notes

**The Manitoba Medical Association Review**

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## An Abstract of the Manitoba Hospital Association's Presentation Before the Union of Manitoba Municipalities, December 7, 1938

An expenditure of three million dollars by one industry—more than half of it pay roll—that is big business.

A million days hospital treatment—a million days personal care—that is a major public service, not just another "social service."

This is equal to one in nine admitted each year to hospital or sanatorium or one and a half days treatment yearly for each man, woman and child in the Province.

That is what the hospitals in Manitoba represent and the service they give.

There are 41 hospitals and sanatoria listed in the Government Return.

18 made a profit—23 a loss. The 18 made a profit of $32,000.00—the 23 lost $388,000.00.

The inference is, if 18 can make a profit why cannot the others? Let us analyze further:

Of the 18 hospitals 16 of them averaged less than 25 occupied beds—8 of them less than 10 occupied beds.

All hospitals over 25 beds with two exceptions showed a loss.

All the hospitals in the "red" provided 900,000 days or nine-tenths of the service of the Province —the profit making hospitals supplied one-tenth of the service.

Again of the million days hospital treatment 946,000 or 88% were public and this is the real reason for losses. The municipal payment of $1.50 and the Government grant of 40c, in effect today, are together insufficient to pay for the hospital care which can and should be furnished in adequately staffed and equipped hospitals.

Examples given:

Cancer and Radiation Therapy.

Pneumonia—cost of care five years ago and now.

Motor accidents and the heavy immediate expense.

The Punch Operation for enlarged prostate, reducing the time, risk and disability, but increasing the expense to the hospital.

Distribution of the Hospital Service. Almost two-thirds of the general hospital beds are in the Winnipeg district. They have an occupancy of 72%. The general hospitals in the Province with slightly over one-third of the beds, have an occupancy of only 49%.

Medical Service—There still appears to be little appreciation of the amount of free medical service in hospital given by the physicians of this Province, a service which if paid for at ordinary rates would materially increase the cost of hospital care. Some day it may have to be paid for if the present inadequate allowances continue. In one hospital in which a study was made two-thirds of the medical service is furnished without remuneration to the doctor. It is the physicians' contribution for the care of those who otherwise could not obtain it.

It is not a case of City v Province. The Manitoba hospitals are on the best of terms with each other. Small rural hospitals would not be justified in employing high priced personnel and elaborate equipment which might be seldom used. The hospitals of Manitoba exist to look after the people of Manitoba — the residents of your Municipalities. The service must be given according to need not the patient's ability to pay—not sound economics in principle, but the only criterion that can be used in actual practice.

It is not alone a City of Winnipeg problem. Approximately 240,000 public days treatment are rendered yearly to patients from outside the City by the hospitals of Greater Winnipeg. This is to patients for whom your municipalities are responsible. This makes the problem of the City hospitals your problem and the problem of the whole Province.

The hospitals are not asking for preferred treatment but for consideration based on the cost of the service rendered.

The Manitoba Hospital Association will strongly support the principle of spreading the cost over the Judicial Districts or to be charged to consolidated revenue rather than the Municipality. The total expense will not be greater, the distribution will be fairer, the hospitals should be better able to collect and the hospital and municipal relations will be infinitely more pleasant.

## Minutes of Special Meeting of Winnipeg Executive

Minutes of a special meeting of the Winnipeg members of the Executive Committee of the Manitoba Medical Association was held on Thursday, December 15th, 1938, at 6.30 p.m. in the Medical Arts Club.

**Present.**

Members of Executive:

Dr. W. E. Campbell (Vice-President, Chairman)
Dr. C. B. Stewart
Dr. O. J. Day
Dr. C. E. Corrigan
Dr. Geo. Brock
Dr. S. G. Herbert
Dr. O. C. Trainor
Dr. E. W. Stewart
Dr. C. W. MacCharles.

Chairman of Committee on Sociology: Dr. E. S. Moorhead.

**Cornwallis-Health Unit.**

The report from the Legislative Committee on letter from Dr. E. S. Bolton, Medical Officer for the Brandon-Cornwallis Health Unit, was read.

This report advised that a meeting of the Legislative Committee had been held on November 21st and that the following motion was passsed:

"Because of lack of information on the question under consideration, we recommend that this letter be referred to the Committee on Sociology of the Manitoba Medical Association, instructing them to confer with the physicians of Brandon and the Brandon Relief Officer in working out a satisfactory arrangement for the medical care of relief recipients."

It was moved by Dr. O. C. Trainor, seconded by Dr. C. B. Stewart: THAT this question be referred to the Committee on Sociology for consideration and report. —Carried.

**Re. Letter from Dr. Routley re. Western Trip.**

The secretary read a letter from Dr. Routley in which he stated that he expected to be in Winnipeg on January 17th and 18th, 1939. It was suggested that arrangements might be made for Dr. Routley to meet various Committees, and also that the full meeting of the Executive should be held either before the visit or at the time of his visit. The secretary was instructed to write Dr. Routley advising him that the Manitoba Medical Association would welcome his visit and arrange the necessary meetings, and notify him of his various appointments.

**Letter from Secretary of C.M.A. re. Salaries to State Medical Officials.**

The secretary read a letter from the secretary of the Canadian Medical Association dated November 18th, 1938, asking if the Canadian Medical Association should study the question of salaries paid to full time doctors in institutions and government services.

The question was raised by the chairman as to whether or not this would include salaries to municipal doctors.

Dr. Trainor pointed out that it was his understanding that it was not the intention of the Canadian Medical Association to extend the scope of this inquiry to include municipal doctors.

After considerable discussion, it was moved by Dr. O. J. Day, seconded by Dr. C. E. Corrigan: THAT the secretary be instructed to write Dr. Routley asking him if it was intended that this inquiry include the question of municipal doctors. —Carried.

**Letter from Secretary of Honorary Attending Staff of St. Boniface Hospital.**

A letter from the secretary of Honorary Attending Staff of St. Boniface Hospital was read in which the question of the legal responsibility regarding patients in hospital as it concerns the practitioner, the hospital and the internes was discussed.

It was moved by Dr. C. E. Corrigan, seconded by Dr. E. W. Stewart: THAT this letter be deferred until Dr. Routley's visit to Winnipeg, at which time he could be asked for recommendation as to the proper procedure to adopt with regard to this question. —Carried.

**Letter from the Chairman of the Committee on Economics of the Canadian Medical Association.**

The secretary read a letter from Dr. Wallace Wilson, Chairman of the Committee on Economics of the Canadian Medical Association, which had been addressed to Dr. Moorhead, the Manitoba member of this Committee. In his letter, Dr. Wilson stated that the resolution sent on to the Canadian Medical Association by the Manitoba Medical Association with regard to fees for reports to Insurance Companies had been referred to their Committee for study, and that an opinion from the other provinces was being obtained.

**Medical Care for Unemployed on Relief.**

The secretary read a letter from Dr. M. S. Lougheed, Assistant Medical Health Officer for Winnipeg, dated December 6th, in which he stated that he and Dr. Harvey wished to meet the representatives of the medical profession to discuss a new arrangement for caring for the unemployed on relief.

The chairman asked Dr. Moorhead for a report on the present status of the medical relief scheme. This was done.

The minutes of the meeting of the panel practitioners held on September 9th, 1938, were referred to and the resolutions read.

There followed a general discussion with regard to this problem.

It was moved by Dr. O. C. Trainor, seconded by Dr. C. B. Stewart: THAT the Committee on Sociology be advised that the Executive Committee see no reason for departing from the original principle of the contract with the City Council for the care of unemployed on relief.

It was moved by Dr. Geo. Brock, seconded by Dr. O. C. Trainor: THAT the Committee on Sociology be instructed to carry out the wishes of the general meeting of the panel practitioners held on September 9th, 1938, but in so doing they are to be limited by their responsibility as a Committee of the Manitoba Medical Association. —Carried.

The question of the Chairman of the Committee on Sociology making a report to the meeting of the Winnipeg Medical Society on December 16th was discussed.

It was moved by Dr. O. C. Trainor, seconded by Dr. Geo. Brock: THAT the Committee on Sociology be instructed to represent the Manitoba Medical Association in negotiations with Drs. Lougheed and Harvey, as requested in Dr. Lougheed's letter, and that Dr. Lougheed be notified to this effect by the secretary. —Carried.

The meeting then adjourned.

## Secretary of Canadian Medical Association To Visit Manitoba

Plans have been made by Dr. T. C. Routley, General Secretary of the Canadian Medical Association, to visit the Provincial Medical Associations of Western Canada during January.

A meeting of the Executive Committee of the Manitoba Medical Association will be held during his visit on January 17th, and in addition there will be meetings with various special committees.

## Membership in the Manitoba Medical Association

The membership year of the Manitoba Medical Association starts on January 1st. The year that is just past was one of the most successful in the history of the Association. The membership was the largest yet attained, and the registration at the Annual Meeting in September was the largest on record. These are indications of the part which this organization is playing in the work of the medical profession in Manitoba.

The voluntary medical organization of the province is based on the District Medical Societies, such as the North Western and the Winnipeg Medical Societies. These are joined together in the provincial organization of the Manitoba Medical Association. This association is again linked with the other provinces of Canada as a branch of the Canadian Medical Association. In this way the chain of contact goes forward from the small local society to the national body. Each of these organizations plays its part in the life and work of the profession. The Canadian Medical Association is also affiliated with the British Medical Association whose branches extend throughout the remainder of the Empire.

The work of the voluntary medical organizations has become increasingly important in recent years. There are a growing number of problems which require co-operation or negotiation between representatives of the medical profession and other social groups including various governments. As the past president, Dr. C. W. Burns, pointed out so clearly in his presidential address in September, the work of the Executive Committee of the Manitoba Medical Association has extended far beyond that of providing a scientific programme and social events for an Annual Meeting. A multitude of medico-sociological problems are presented to the executive throughout the year. Some of these problems such as the Unemployment Relief Medical Service in Winnipeg, require frequent consideration.

State Health Insurance is a problem which is more and more requiring the study and attention of the medical profession. The profession may be required to express some opinion on this problem before long. The Manitoba Medical Association has kept in touch with developments in this field and the Committee on Sociology has been making a study of the problem. Your opinion on this as on other such questions can be effectively expressed only through the organized medical societies. It is futile for a practitioner to stand aloof from an organization such as the Manitoba Medical Association and then complain that this organization does not truly represent the opinion of the medical profession.

The various Standing and Special Committees hold frequent meetings throughout the year. The chairmen of these committees are members of the similar committees of the Canadian Medical Association and in this way a close liason with the national body is maintained. Various subjects are referred to these committees for study and report. A brief perusal of the reports presented at the Annual Meeting in September will show the amount of work carried out by the members of these committees.

One of the important functions of the Manitoba Medical Association is to provide speakers for the meetings of the District Societies throughout the year. This work is invaluable in making for an exchange of information throughout the profession and aiding the diffusion of recently accumulated knowledge.

The Manitoba Medical Association *Review* is sent to every practitioner in Manitoba, and in addition to recording the work of the Association and carrying the official news items from the Department of Health, publishes short clinical articles of topical interest.

Arrangements for the next Annual Meeting of the Association next September are already under way, and it is hoped that it will again be possible to have guest speakers from outside Manitoba.

The Executive Committee trust that all old members and a great many new members will join the Manitoba Medical Association in January. The Manitoba Medical Association is your organization and can function effectively only if it has the active membership of the great majority of medical practitioners throughout the province.

## OBITUARY

### Dr. Samuel Alexander McKeague

Dr. Samuel Alexander McKeague died at his home in Winnipeg on December 9th. Born at Wellandport, Ont., in 1858, he graduated from Trinity Medical College, Toronto, in 1884, and later obtained the L.R.C.S. & P. degree from Edinburgh. For some years he practised at Wellandport and Acton, then came to Winnipeg in 1904 where he secured a large practice. On his retirement in 1928 he was made an honorary member of the Manitoba Medical Association. He is survived by his widow, daughter of Hon. David Henderson, Acton; three sons and two daughters. He will be remembered for his kindliness. One of the sons is Dr. David Henderson McKeague, a Manitoba graduate, now practising at Maddock, North Dakota.

"Never give a definite opinion as to how long a patient suffering from pulmonary tuberculosis will live, for the only certainty is that if you do, you will be wrong."—*Samuel Gee.*



## Vitamin Needs in Pregnancy

In may ways pregnancy is a great drain upon a woman's system and it is necessary that she receive a diet adequate in vitamin and mineral content.

Vitamin A is important in strengthening the resistance of the epithelial membrane to infection.

Vitamin D is important in its role as the regulator of calcium metabolism. If the diet is lacking in Vitamin D, calcium will not be assimilated.

Vitamin E has an important effect upon the reproductive glands. The work of Watson, Shute and others has shown that lack of Vitamin E is one of the prime causes of habitual abortion.

Calcium Phosphate is essential if the pregnant woman is to have sufficient calcium to supply the needs of the developing foetus.

Calhalol-E Capsules (Horner) contain Halibut Liver Oil Fortified, Wheat Germ Oil and Calcium Phosphate. Dosage with Calhalol-E ensures that the mineral requirements of the pregnant woman are adequately taken care of. There will be no drain on the mineral content of her body and nausea and pruritus will generally be conspicuous by their absence.

Calhalol-E should be given to every expectant mother, irrespective of any other condition arising during the period of gestation. —Advt.

### B.D.H. Sex Hormones

**The manufacture of the Female Sex Hormones in a crystalline form and the supply of accurately standardised preparations for clinical use have led to the development of an exact technique of application in the majority of conditions associated with ovarian dysfunction.**

**In the belief that it will be of interest a booklet of sixty-four pages has been prepared dealing with the employment of B.D.H. Sex Hormones in gynaecological and abnormal obstetric conditions of endocrine origin. The booklet is esssentially clinical in outlook; it deals with the established method of administration of the hormones in these very important indications.**

—Advt.

# Department of Health and Public Welfare

## NEWS ITEMS

### THE PREVENTIVE ASPECTS OF VITAMIN DEFICIENCY DISEASES IN INFANCY AND EARLY CHILDHOOD

*David H. Shelling*

"Twenty-five years ago, the subject of avitaminosis was practically unknown to physicians; but today lay persons are more vitamin conscious than their physicians. This vitamin-consciousness is due largely to the campaign waged by modern medicine in preventing deficiency diseases, and, in part, to advertisements which constantly remind the laity that failure to partake of foods containing vitamins may lead to illness.

"The prevention of vitamin-deficiency diseases is less of a problem in the adult than in the infant and growing child. This is due to the fact that the average adult eats a mixed balanced diet containing "natural" food substances which are usually adequate in all the known vitamins. The infant or the young child, on the other hand, has to depend on food substances which are not always 'optimal' in their vitamin contents. Milk, the chief article of food in the infant's diet, contains a fair amount of vitamin A but is poor in vitamins $B_1$, C, and D. Other food substances, introduced during infancy, may likewise be deficient in one or more of the vitamins. It is, therefore, important to supplement the diet of the infant and young child with the necessary vitamins, either in the form of natural foods or commercial preparations. Since mild degrees of vitamin deficiencies are difficult to detect and may manifest themselves as remote complications, it is important that vitamins be administered in 'optimal' rather than in 'minimal' amounts, when these amounts can be ascertained.

"The deficiency diseases encountered during infancy and early childhood are chiefly those resulting from a paucity in the intake of vitamins A, B, C and D.

#### VITAMIN A

"The best known clinical syndrome of vitamin A deficiency is xerophthalmia or keratomalacia. Fortunately, this form of avitaminosis is unknown in the United States, since nearly all infants and children consume daily a fairly optimal amount of vitamin A in their milk. Milder degrees of vitamin A deficiency, however, do occur and these are evident in their effect on epithelial tissues in the form of (a) keratinization of the skin into a hard papular lesion about the extensor surfaces of the forearms, legs and thighs; (b) urinary tract infections with calculus formation; (c) and infections of the respiratory passages. The latter changes, as well as the thickening of the epithelial layers of the gastrointestinal tract, have been noted in experimental animals and in young infants in whom the intake of vitamin A was deficient or the vitamin was not absorbed in appreciable amounts as a result of a protracted diarrhea or of celiac disease. These inflammatory changes in the tissues in hypovitaminosis A are, in reality, secondary to the keratinization of the epithelial linings, and the only known function of vitamin A is to maintain a normal epithelium which will act as a barrier to infection. Such a function, however, is not sufficient to designate it the 'anti-infective' vitamin. Furthermore, it has not been proved conclusively that excessive amounts of vitamin A will increase resistance to infection, nor has it been established that the vitamin has any influence on immunological reactions in the body.

"Night blindness, or the inability to see clearly in dusky light, as a manifestation of vitamin A deficiency, has not been observed to any great extent among American children. Jeans and Zentmire, however, found that a large percentage of school children in Iowa had abnormal vision in the dark, which they believe to be due to vitamin A deficiency and which they claimed to have been benefited by cod liver oil.

"Deficiency of vitamin A in normal infants is prevented by an adequate intake of milk rich in butter fat and by supplements of either carotene, or of the liver oils of the cod, halibut, burbot, tuna, or of the fish of the percomorph group. In older children, the deficiency may be prevented by the inclusion in diet of butter, cream, carrots, spinach, eggs, and the fish oils just mentioned. The exact daily requirement of vitamin A for infants or children is not known but is estimated to be between 4,000 and 10,000 U.S.P. units daily.

"In infants with protracted diarrhea or in children with celiac disease, a large percentage of the vitamin A ingested is apt to be lost in the stools. Under such circumstances, much larger doses of vitamin A should be administered in order to assure an adequate retention. In rare instances, a concentrate or an emulsion of the vitamin may be injected intramuscularly.

"Recent studies in animals indicate that large amounts of vitamin A may be lost in the feces as a result of purgation with mineral oil and that this loss may be averted, at least in part, by an abundant supply of vitamin B. Consequently, the indiscriminate use of mineral oil as a laxative should be discouraged.

#### VITAMIN B

"Since the original discovery that beriberi or multiple neuritis was caused by a paucity of vitamin B in the diet, several other fractions of the vitamin have been isolated, each having a specific effect on the body physiology. The two principal fractions of pediatric interest are $B_1$ and $B_2$ (G), although actually, manifestations of a deficiency of either of these fractions occur but rarely in infants and children of this country. This is due to the fact that such infants and children receive protective amounts of these vitamins in their food. However, in cases of prolonged diarrhea or vomiting, vitamin B deficiency should be suspected and therapy instituted, in spite of the difficulty of establishing the diagnosis.

"The cardinal clinical feature of vitamin $B_1$ deficiency in adults is beriberi with its triad of symptoms of edema, peripheral neuritis, and cardiac failure. The diagnosis is fairly simple in well advanced cases but extremely difficult in states of partial deficiency. In children, the diagnosis is even more difficult, for the symptoms may resemble a variety of diseases referable to the cardiac, nervous and gastrointestinal systems, which may or may not be associated with vitamin $B_1$ deficiency. However, if the child is breast fed and there is reason to believe that the mother's diet is deficient in vitamin $B_1$, both the mother and the child should receive supplements of this vitamin.

"Pellagra, the disease caused by a deficiency in vitamin $B_2$ (also known as vitamin G, the anti-dermatitis vitamin or the P-P factor), is a rare occurrence in infants and young children, except in pellagra district. Thus, it occurs in breast fed babies whose mothers are pellagrins.

"In experimental animals, a lack of vitamin B in the diet leads to anorexia. Whether or not anorexia in apparently normal children is due to such a deficiency has not been definitely established, although it must be admitted that in some children the anorexia may be overcome by the administration of substances containing large amounts of vitamin B.

"Prematurely-born infants are more susceptible to rickets than are full-term babies. This may be due to the rapidity of skeletal growth, to the requirement for phosphorous in building rapidly-growing soft tissue, and possibly also to the inability of the premature to utilize calcium phosphate in seemingly optimal amounts, unless larger doses of vitamin D are given. Since the concentration of vitamin D in average cod liver oil is limited, it is best to feed such infants substances containing the vitamin in more concentrated amounts, i.e., viosterol, halibut liver oil, percomorph oil, and irradiated ergosterol in propylene glycol. The average daily dose of the oily preparations is about 3,000 to 4,000 units and the average daily dose of irradiated ergosterol in propylene glycol, dissolved in milk is about 1000 units. These may be started in the first week of life and the dosage continued until the baby reaches a fairly normal weight, when it may be reduced to the levels recommended for full-term infants.

"Children with celiac disease may lose ingested calcium in the form of soaps and fat soluble vitamins in their fatty, bulky stools. For this reason, larger amounts of vitamin D must be given to assure an adequate retention and to prevent the loss of calcium, if possible. As most clinical observers believe that fat should be restricted in the diets of patients suffering from this disease, cod liver oil with its large bulk of fat is not a suitable source of vitamin D. Viosterol, cod liver oil concentrates, fish liver oils fortified with irradiated ergosterol, or irradiated ergosterol in propylene glycol are preferable. The dose is the same as prescribed for prematurely-born babies."

"Vitamin B and its various fractions occur in abundance in fresh vegetables and in Brewer's yeast. It may also be obtained from wheat germ or its oil. The antipellagra factor is also found in milk, glandular tissue, fish and meat. For the prevention of vitamin B deficiency in the average normal child, a well balanced diet, containing milk, vegetables and meat, is sufficient. For children with chronic diarrhea or for those who do not tolerate vegetables, vitamin B may be supplied in the form of powdered yeast, yeast tablets, yeast extracts, or as malt.

## VITAMIN C

"A deficiency in vitamin C results in scurvy. The disease is much more common in infants than is generally suspected. This is especially true among infants of poor families. While such families are usually aware of the need of cod liver oil as an antirachitic agent and thus manage to receive it from one charitable organization or another, they fail to provide the infant with foods containing vitamin C, with the result that many such infants and even children suffer from either manifest or sub-clinical scurvy. The former is easily diagnosed, but the latter may be readily overlooked. It may be responsible for poor dentition, hemmorhagic tendencies, and even for anemia not due to a lack of iron.

"Scurvy may be easily prevented in infants by adding citrous juices to their diets and in young children by the inclusion in the diets of citrous fruits and of vegetables. In infants, orange juice has been used most extensively as an antiscorbutic, but the juices of other citrous fruits such as lemon, lime or grapefruit are equally as good. The usual daily preventive doses for infants is the juice of at least one orange. Tomato juice, freshly pressed or canned, is also a good source of vitamin C, but the amount necessary to prevent scurvy is usually twice that of orange juice. Families who cannot afford to buy citrous fruits may obtain a fair supply of vitamin C from the juice of raw cabbage or raw potatoes, but such a source is seldom resorted to either because of an aversion to such juices or because of ignorance of the fact that these simple vegetables contain vitamin C.

"Pure vitamin C, or cevitamic acid, is now obtainable on the market in solution and as coated pills. The pills may be added to a portion of the daily milk formula and thus provide an adequate source of vitamin C. Milk enriched with cevitamic acid should not be allowed to stand more than a few hours, as the vitamin potency may thus be reduced.

## VITAMIN D

"A deficiency in vitamin D results in rickets. Until very recently, rickets was a most prevalent disease in Europe and in America. It exacted its toll not so much in death as in deformities of the extremities, chest and pelvis. With the advancement of knowledge concerning the nature of vitamin D and its popularization by physicians and public health agencies, the incidence of rickets has waned considerably. Even among Negro children, the most susceptible to this disease, both the incidence and severity have diminished, so that one may find it difficult to find in New York City a sufficient number of babies with active rickets to study the curative effects of vitamin D preparations.

"Vitamin D and the parathyroid glands regulate not only the deposition of lime salts in the skeleton but also the levels of calcium and inorganic phosphorus in the serum. A deficiency in either vitamin D or in the secretion of the parathyroids may result in a lowered concentration of calcium in the serum, ultimately leading to tetany. Thus a deficiency in vitamin D may produce either rickets alone or both rickets and tetany. It is important to realize that tetany is a serious symptom and that it may occur not only in infants entirely deprived of vitamin D but also in babies receiving inadequate amounts, in which cases the rickets is mild or is in a state of partial healing. Therefore, in prescribing vitamin D, the dosage should be sufficient to prevent completely both rickets and tetany.

"Rickets can be prevented in infants by the regular admininistration of about 1200 U.S.P. units of vitamin D in the form of cod liver oil, halibut liver oil, percomorph oil, tuna liver oil, or viosterol. This number of units is usually contained in three teaspoonfuls of average cod liver oil or in five drops of viosterol (10,000 U.S.P. units per gram). The dosages of the other fish liver oils and the various modifications with viosterol depend upon the number of rat units they contain per gram. The dosage of such preparations may be ascertained as follows: One gram of oil contains X number of units; each gram of oil contains approximately 40 drops, and 4 grams or cubic centimeters of oil make one teaspoonful. Divide X by 40 to obtain the number of units per drop and then divide the number of units desired to administer by this number to obtain the number of drops, cubic centimeters, or teaspoonfuls.

"Vitamin D may be administered indirectly in milk, cereals and bread. Some of these foods on the market are made antirachitic by irradiation with carbon or mercury quartz lamps; others are made so by the addition of viosterol or of the concentrates of fish liver oils. The antirachitic value of bread and of cereals to the very young infant is probably negligible, since the number of rat units of vitamin so acquired is usually quite small. Vitamin D milk, however, offers an excellent vehicle for the universal distribution of vitamin D, for all babies drink milk. The irradiated milks, however, are not to be entirely relied upon to protect against rickets, since the number of rat units which can be imparted to milk by irradiation is just below the minimum requirement for complete protection. However, milk rendered antirachitic by the addition of viosterol or of cod liver oil concentrates are much safer, for they contain a larger number of units per quart than irradiated milk, usually 400 U.S.P. as against 135 units in irradiated milk. The efficacy of this lesser number of units of vitamin D in milk as compared to cod liver oil or viosterol (1200 units), fed separately, is probably due to the fact that, in milk, the vitamin is homogenized or finely dispersed in the small fat globules and is probably thus more

easily absorbed from the gastrointestinal canal.

"In this connection, is must be remembered that the mere addition of viosterol in oil, or a few drops of other potent vitamin D preparations in oil to the milk formula will not render the milk antirachitic, since the oil merely floats and sticks to the sides and the infant usually receives little or none of the vitamin D. It is necessary that the oil be homogenized in the milk mechanically as is done in commercial processes. Recently, irradiated ergosterol was introduced on the market in a non-oily vehicle which is miscible with milk and other aqueous solutions. The vehicle is propylene glycol. It is tasteless, odorless, and apparently non-toxic; and probably because it disperses the vitamin D in the fat globules of the milk, its antirachitic activity approaches that of vitamin D milk, i.e., it requires only 400 U.S.P. units to protect against rickets.

## COMMUNICABLE DISEASES REPORTED

### Urban and Rural — November, 1938

**Occurring in the Municipalities of:**

**Scarlet Fever:** Total 260—Winnipeg 108, Portage Rural 18, Morton 17, Rosser 10, Woodworth 9, Springfield 9, Brenda 7, Daly 7, Portage City 7, St. Andrews 6, St. Boniface 6, Kildonan East 5, Brooklands 4, Franklin 4, Kildonan West 4, Unorganized 4, Brandon 3, Charleswood 3, Flin Flon 3, Siglunes 3, Transcona 3, Hillsburg 2, Ochre River 2, Argyle 1, Dauphin Rural 1, Fort Garry 1, Glenwood 1, Killarney 1, Lorne 1, Louise 1, Selkirk 1, Shellriver 1, Souris 1, Swan River Rural 1, St. Vital 1, Turtle Mountain 1, Tuxedo 1, Woodlands 1 (Late Reported: October, St. Boniface 1).

**Chickenpox:** Total 203—Winnipeg 79, Dauphin Town 17, St. Vital 14, Roblin Rural 13, Unorganized 13, Dauphin Rural 11, Selkirk 11, St. Andrews 11, Kildonan West 8, St. James 7, St. Boniface 5, Brandon 3, Pipestone 4, Binscarth 1, Cypress North 1, Hamiota Village 1, Portage Rural 1, Stonewall 1, Whitehead 1 (Late Reported: October, St. Boniface 1).

**Measles:** Total 128—Turtle Mountain 27, Winnipeg 16, Argyle 14, Roblin Rural 14, Lorne 13, Springfield 11, Cypress South 6, Cartier 3, Rosser 3, Arthur 1, Fort Garry 1, Franklin 1, Killarney 1, Louise 1, Oakland 1, Riverside 1, Strathcona 1, Wawanesa 1 (Late Reported: October, Cypress South 11, Bifrost 1).

**Mumps:** Total 94—Winnipeg 70, Brandon 6, Kildonan East 6, Unorganized 5, Tuxedo 2, St. James 2, Argyle 1, Kildonan West 1,, Virden 1.

**Whooping Cough:** Total 74—Winnipeg 25, Unorganized 8, Kildonan East 7, Arthur 6, Brandon 6, Hanover 5, Daly 4, Lawrence 4, Stonewall 2, Killarney 1, St. James 1, Woodworth 1 (Late Reported: October, St. Andrews 1, St. Boniface 1, Unorganized 2).



**Diphtheria:** Total 64—Flin Flon 21, Winnipeg 14, Hanover 11, Unorganized 11, Brandon 2, Westbourne 2, Kildonan West 1, Selkirk 1, St. Andrews 1.

**Diphtheria Carriers:** Total 17—Flin Flon 9, Winnipeg 3, Unorganized 2, Hanover 1, Rosser 1 (Late Reported: October, Selkirk 1).

**Anterior Poliomyelitis:** Total 16—Franklin 2, St. Boniface 2, Unorganized 2, Coldwell 1, De Salaberry 1, Miniota 1, Rhineland 1, St. Andrews 1, St. Laurent 1, Thompson 1 (Late Reported: August, St. James 1; October, Dauphin Rural 1, Gimli Rural 1).

**Tuberculosis:** Total 16—Winnipeg 15, Brandon 1.

**Typhoid Fever:** Total 12—Unorganized 4, Hanover 2, Binscarth 1, De Salaberry 1, Franklin 1, Kildonan East 1, St. Boniface 1 (Late Reported, September, Hanover 1).

**Influenza:** Total 10—Ellice 1, Winnipeg 1 (Late Reported: September, Hanover 1, Norfolk North 1, Portage City 1; October, Cypress South 1, St. Anne 1, St. Boniface 1, Unorganized 1, Virden 1).

**Septic Sore Throat:** Total 8—The Pas 4, Daly 2, Brooklands 1, Flin Flon 1.

**Erysipelas:** Total 8—Winnipeg 4, Argyle 1, St. Boniface 1, St. James 1, Transcona 1.

**Trachoma:** Total 2—Hanover 2.

**Epidemic Jaundice:** Total 2—Lorne 2.

**Cerebrospinal Meningitis:** Total 1—St. James 1.

**Ophthalmia Neonatorum:** Total 1 (Late Reported: April, Daly 1).

**German Measles:** Total 1—Kildonan West 1.

**Venereal Disease:** Total 180—Gonorrhoea 108, Syphilis 72.

## DEATHS FROM ALL CAUSES IN MANITOBA

### For the Month of October, 1938

URBAN—Cancer 55, Pneumonia 14, Tuberculosis 5, Infantile paralysis 3, Syphilis 3, Influenza 2, Typhoid fever 2, Lenthargic Encephalitis 1, Septic Throat 1, all others under one year 14, all other causes 174, Stillbirths 13. Total 287.

RURAL—Cancer 29, Tuberculosis 10, Pneumonia 9, Influenza 5, Whooping Cough 3, Diphtheria 2, Dysentery (not specified) 1, Scarlet fever 1, all others under one year 43, all other causes 157, Stillbirths 20. Total 280.

INDIANS—Tuberculosis 10, Whooping Cough 4, Pneumonia 2, Dysentery (not specified) 1, all others under one year 1, all other causes 2, Stillbirths 1. Total 21.

## NOTICE

To: ALL THE PRACTISING PROFESSION

PLEASE NOTE:

THAT, ORDERS for BIOLOGICS and ENQUIRIES for the DIVISION of DISEASE PREVENTION should be directed to the NEW HOME of the Branch Offices of the DEPARTMENT OF HEALTH AND PUBLIC WELFARE at 320 SHERBROOK STREET, Winnipeg, Telephone 37 131 after January 1st, 1939.

**The Manitoba Medical Association Review**

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CONTENTS

# The Financial Implications of Compulsory Health Insurance*

*By*

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*Consulting Actuary and Statistician*

*Toronto*

Any discussion of "The Financial Implications of Compulsory Health Insurance"—particularly by an actuary, and before an audience such as this—should, I think, begin by stating some fundamental definitions, and considering certain basic propositions, in order that the various matters which present themselves for investigation may be quite clear.

Since I am speaking in British Columbia, where a Health Insurance Bill has been actively under discussion for several years without agreement on its terms having been reached, I shall necessarily frame some of these observations on the circumstances underlying that particular legislation. In so doing, however, I ask you, in all sincerity, to interpret my remarks as being prompted solely by a desire to secure, for any such measure which may ultimately be adopted in Canada, the soundest possible financial basis and the fullest degree of co-operation.

My desire for a sound financial basis is natural, of course, to an actuary—for reasons which I shall explain.

The hope that real co-operation may be attained between the Government and the medical profession arises in my case with perhaps special force because my own father was a doctor. I was brought up in a household where the devotion of physicians was a matter of daily observation, and the attainments and ethics of the medical profession occupied a very honoured place.

## THE MEANING AND CAPACITY OF HEALTH "INSURANCE"

I should, accordingly, like to direct your attention first of all to the meaning of "Health Insurance." Even though it entails repeating what has so often been explained, it may be said that "Insurance" involves the co-operative association of a large number of persons, who agree to share amongst themselves the burdens arising from the occurrence of a particular contingency—in this case sickness—by the payment of the necessary contributions into a common fund, from which benefits, related strictly to those contributions, are distributed in alleviation of the burdens against which the insurance is effected.

"Insurance" thus defined is not in any sense a new, or even a recent, concept. It is not, I think, generally appreciated that voluntary societies for insurance against the losses resulting from sickness existed in Europe centuries ago. Over the intervening period, and especially during the last 140 years, a very extensive experience has been gained in the evolution of certain fundamental principles and practical methods of procedure. A great body of statistical data has also been accumulated and systematically analyzed. The actuary may now therefore be said, quite properly, to be in a position to embark upon the preparation of the necessary estimates and regulations for any scheme of health insurance with much valuable material—and yet with a very salutary degree of caution. Again at the risk of repeating well established facts, I should like in this connection to ask you to note that the rate of sickness in any community, or scheme, has been shown to depend upon a great variety of circumstances, of which the most significant are age, sex, marital condition, occupation, personal and family history, locality of domicile, and economic status. Moreover, while these are the major influences determining the rates at which illnesses actually occur, it is important to remember that the introduction of any plan which offers either benefits in cash or benefits in kind immediately brings into prominence the psychology and ethics of the persons insured, so that the rate at which claims for sickness benefits are made shows marked differentiation from the previously mentioned rate at which the sicknesses actually arise. The factors which thus, in addition to those already enumerated, have a significant effect upon the rate of claim—and therefore upon the financial experience of any insurance plan—are:

Firstly—the "qualifying period," i.e., the period which must be passed before the insured person first becomes eligible to file a claim.

Secondly—the "waiting period," that is to say, the number of days of sickness which must elapse before payment of any cash benefit shall commence.

Thirdly—the "benefit period," being the length of time for which benefits will be paid.

Fourthly—the so-called "periods of attack," generally used in the case of benefits in cash, by which the claims are segregated according to their incidence in, for example, the "first three months" of claim, "second three months," "second six months," etc.

Fifthly—the "re-qualifying" period, during which eligibility must be re-established after exhaustion of any benefit period.

Sixthly—the relation of the character and amount of the benefit to the normal standard of living and earnings of the claimant prior to the occurrence of the sickness, and,

Lastly—the nature and size of the organization through which the payment of benefits is obtainable, and the facilities for and regulations governing the filing of claims, their medical certification, and their final scrutiny.

* An Address delivered before the Sixth Canadian Conference on Social Work, Vancouver, B.C., July 21, 1938.

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All that sounds, I well know, a formidable recital; in many ways almost every one of these factors presents a difficult problem of calculation and administration. Yet they must all be taken into account. If they are not clearly understood by both the administrators of any plan, and the insured persons who are to be covered by it, the result inevitably will be wide-spread dissatisfaction. Any scheme of "health insurance" must accordingly be based on certain definite principles and regulations; it cannot promise or attempt to give benefits on an unrestricted scale—to do so would mean financial bankruptcy for the plan, and loss and disappointment for those who had thought they were "insured."

### THE MEANING OF THE PHRASE "ACTUARIALLY SOUND"

In connection with these explanations of the meaning of "insurance," I now wish to ask your attention to an important matter which next, in logical order, arises for consideration, and which, I think, has been somewhat misunderstood in many of the discussions surrounding the British Columbia Act. I refer to the meaning of the phrase "actuarially sound."

By way of introduction, I should describe briefly the functions and duties of the actuary. The designation "actuary" was first used officially in the deed of settlement of the old Equitable Society, founded in London for the insurance of lives over 175 years ago. Charged originally merely with keeping the registers of the risks carried on the books of the insuring institution, the actuary soon was faced with the necessity for tabulating and analyzing the records in which special mathematical processes rapidly assumed a position of importance. Concurrently with this evolution of the actuary's technique with respect to life insurance, it is particularly significant to note that the first formal recognition in Great Britain of the profession of actuary is to be found in an Act of Parliament, passed as early as 1819, providing that the tables, and the rules, of all death and sickness "benefit societies" should be approved by an "actuary." The methods of calculation, and the formulation of the rules, in respect both of life insurance and sickness benefits, have thus for many years been primarily the actuary's responsibility. Comparable methods have naturally been developed in connection also with the other contingencies of human life, in addition to sickness and death—namely, birth, marriage, accident, disability, and unemployment —so that today the actuary may be described as the professional man whose duty it is to deal with all the statistical, mathematical, and financial calculations which form the basis of any schemes involving the contingencies of human life.

Remembering the definition of "insurance," and these essential responsibilities of the actuary, it is abundantly obvious that any form of health insurance is a type of insurance with which the actuary, if he is to discharge his full duties, must be immediately and directly concerned. Health insurance, whether it is to give benefits in cash or benefits in kind, and whether it is instituted through voluntary action, or enforced partially or wholly by governmental compulsion, is therefore clearly a type of insurance which can be—and I do not hesitate to say, should be—set upon a framework complying with the well known and well tried principles and methods which have been developed by those fully qualified actuaries who have been trained both in the theoretical requirements and in the school of practical experience.

If official confirmation of this view should be required, it is to be found in detail in the Year Book of the Institute of Actuaries of Great Britain, where clearly defined responsibilities of precisely this character are placed upon the actuary by a wide variety of Acts of Parliament, and in Canada, for example, in the Memorandum issued by the Superintendent of Insurance (of the Dominion Department of Insurance) respecting actuarial valuations of fraternal benefit societies—which, it is to be noted, generally provide benefits during sickness, sometimes in cash and sometimes in kind, based on principles very similar to those involved in governmental "health insurance" schemes.

There would not seem to be any good reason for legislative apathy concerning the actuarial aspects of governmental schemes, when the legislatures have so insistently and properly demanded actuarial supervision of voluntary plans. It would appear that sound principles of government finance should require that a government's financial adventures ought to be regarded in the same manner, and regulated by the same types of prudent supervision, as those which quite properly are imposed on voluntary forms of business. I use the word "adventures" in no invidious sense —for all our economic and financial efforts, whether undertaken by individuals, or by some voluntary collection of individuals, or by that all-inclusive collective known as "government," must always be in reality "adventures"—expeditions into the partially unknown—a realm to be explored, intelligently, cautiously, without recklessness, and always, if at all possible, with an ever open road for orderly and dignified retreat. It is precisely through neglecting these cautionary restrictions in many fields of activity—politically nationalized railroads, free old age pensions instituted with almost no financial investigation, governmental pensions sold at inadequate rates (often to the rich, though originally intended for those with only moderate incomes), insufficiently controlled unemployment relief, and governmental subsidies to all and sundry—that we have, even in this greatly favoured country, reared an edifice of governmental debt of a dangerously top-heavy character, with all the resultant and growing sectionalisms so threatening to our national unity.

Since, therefore, as I see the problem, the actuary must have an unavoidable responsibility in the establishment of health insurance, let us examine in some detail what those duties ought to be, and are:

In the first place, the scales of benefits which are to be given by the plan must be settled, and the conditions under which they will become payable must be drawn. When those scales of benefits, and conditions for payment, are definitely known —but not until they are definitely known—no person but a qualified actuary has at his command either the technical mathematical-statistical knowledge, or the practical administrative experience, necessary for the calculation and prescription of the financial contributions which will be essential for their support.

Alternatively, of course, in some instances it may be thought desirable to set, first of all, the scale of contributions, and for the actuary thence to determine the benefits which they may be expected to provide.

In either case the two considerations of paramount importance are:

Firstly, that a proper relationship, founded upon actuarial principles and calculations, must be established between the scales and conditions of benefits on the one hand, and the contributions on the other hand, and,

Secondly, that the scales and prescribed provisions for payment both of contributions and of benefits must be specifically defined. Only under such circumstances can the actuary make his calculations, and give a certificate that the plan is "actuarially sound."

A certificate of "actuarial soundness" — or "actuarial solvency," to use an alternative and equivalent term — therefore requires that the certifying actuary has satisfied himself, after complete investigation of all the relevant circumstances determining the conditions for payment of contributions, benefits, and all other possible expenditures, that the financial basis and control of the entire scheme is so constructed that "in his opinion . . . the reserve shown by (his) valuation, together with the . . . contributions to be thereafter received from the members according to the scale in force at the date of valuation, is sufficient to provide for the payment at maturity of all the obligations of the fund without deduction or abatement." That phraseology, as an example, is the official requirement with which a certifying actuary must conform in reporting on the state of a fraternal society in Canada. That certifying actuary, moreover, by general legislative prescription throughout Great Britain, and in Canada, must, of course, be fully qualified, that is to say, he must (except where special circumstances justify the supervising authorities in allowing some other person to perform the work) be a Fellow of one of the four recognized bodies—the Institute of Actuaries of Great Britain, the Faculty of Actuaries in Scotland, the Actuarial Society of America, or the American Institute of Actuaries. Clearly an Associate only of one of those bodies cannot generally be admitted as a qualified certifying officer, seeing that the examinations for Associateship cover only the less practical first portion of the training, and at the Actuarial Society and the American Institute on this Continent do not include the technique or valuation of, or any but the most superficial acquaintance with, health insurance in any of its forms.

"Actuarial soundness," accordingly, can be claimed for any plan only when all of the following conditions are fulfilled:

(1) The benefits offered by the plan must be defined, and the conditions for their payment must be clear.

(2) The corresponding contributions, or other financial arrangements, by which the costs of such prescribed benefits are to be met, must be determined by proper actuarial calculation, as previously described.

(3) Any power to alter the basis, terms, or conditions of the scheme must be subject to an actuarial certificate that the costs of such alteration are within the financial capacity of the plan, and

(4) Adequate machinery must exist for the certification, inspection, and control of claims for benefits, in order to make certain that they fall within the terms and conditions of the scheme, and for the impartial and judicial interpretation of the numerous and difficult administrative problems which inevitably arise.

If any plan of insurance cannot meet these tests, it cannot be certified as being "actuarially sound." It must then obviously be classed as being either "actuarially indeterminate," or "actuarially unsound." If the actuary cannot set out the benefits, conditions, contributions, powers of alteration, and methods of organization and control in such a distinct manner that he can, according to his best judgment and experience, formulate his methods of calculation with reasonable certainty and with adequate (though not, of course, excessive) margins of safety, then it is obvious that the basis of the plan must be "actuarially indeterminate" — "void for uncertainty," as I believe the lawyers would say. If, on the other hand, a plan is definable enough, but shows itself, on actuarial calculation, to propose benefits greater than the contributions can support, then there is no alternative to its being reported as "actuarially unsound."

### WHAT, FOR INSTANCE, IS THE ACTUARIAL BASIS OF THE BRITISH COLUMBIA HEALTH INSURANCE ACT?

I have dealt at some length with this matter because, having in 1935 been retained to report to the Hon. G. M. Weir, Provincial Secretary, on the cash benefit provisions then included in the British Columbia Health Insurance Bill, and having estimated the probable incidence of claims thereunder without any necessity arising in that report for a certification of "actuarial soundness" of the whole Bill, I have since been named in some quarters as a fully qualified actuary who has examined the entire scheme without having questioned it, in others as an actuary who has definitely

opposed it, while again I have been challenged to state specifically that the scheme is not "actuarially sound." In view of a great many quite erroneous interpretations of my position which have thus been circulated, I think it is only proper that I should repeat here the opinion which I have previously expressed, and which I hope may now be understood in view of the preceding definitions. It is this:

The Act, as finally passed, calls for employees' contributions of 2% of wages up to $1800 per annum, but varying from 35c weekly (reducible, however, by the Commission) up to 70c weekly, and employers' contributions of 1% but varying between 20c weekly (again reducible by the Commission) and 35c weekly—that is to say, it calls for contributions lying somewhere between a minimum of 55c weekly, or less, and a maximum of $1.05 per week. The benefits to be given, however, are not at all clearly ascertainable in advance. They are stated at first to be:

(a) Physician's services (including pre-natal and maternity treatment, and surgical and specialist services).

(b) Public-ward hospitalization (including all services which the hospital is equipped to provide).

(c) Drugs, medicines, and dressings (of which possibly one-half may be payable by the insured).

(d) Laboratory, X-ray, biochemical, and other services.

It is, however, to be noted very specially that the following extremely important conditions are attached, either by specific statements in other portions of the Act or by obvious implication:

(1) The hospitalization benefit is limited to ten weeks, but may be extended by regulations.

(2) Additional benefits may be provided by the Commission to the extent that the resources of the fund permit.

(3) Any or all of the benefits may be limited by the Commission.

(4) No benefits can be obtained during a first qualifying period of 4 weeks; thereafter they shall be obtainable so long as the contributions are payable and for 4 more weeks and also for such additional period as may be determined by the Commission; if the employee falls ill and is unable to work he (but not his dependents) may receive benefits for 12 more weeks, or for a longer period if prescribed by the regulations; and the right to benefits can be re-established after eligibility ceases, at the end of a re-qualifying period of one week, after which benefits are obtainable while contributions are payable and for one more week and also for such additional period as may be determined by the Commission.

(5) The physicians are to be remunerated, at a rate not less than $4.50 per person per annum, by salary, per capita, or fee system, as may be fixed and determined by the Commission's regulations; the scales of payment to all others—pharmacists, hospitals, laboratories, etc.—shall be fixed and determined by the Commission's regulations; and in all cases the Commission can penalize any physician, pharmacist, manager of hospital or laboratory, or any other person who fails to provide services according to the standards prescribed by the Commission, and,

(6) The Commission (of five members)—who may, but need not, be advised by a Technical Advisory Council—is clothed with such exceedingly wide powers that it is, I believe, essential that very careful examination (to which I shall return) should be given by everyone concerned to their inevitable meaning and effect.

It will be seen at once that the benefits to be offered in return for the contributions are, in reality, almost wholly undefined. It is also to be noted especially that the Commission has almost absolute power to state which of the listed benefits shall be granted, whether they shall be provided at the suggested or at a lower or higher scale, for how long they shall be receivable, what the rates of payment shall be for every one of the necessary services, and how, when, and where every single function under the Act shall be performed. Under such circumstances it is manifestly impossible to set out, with any approach to definiteness, either what the benefits are likely to be, or what they are likely to cost.

The plan consequently means nothing more than that the employees and employers are to be required to pay over to the Commission certain widely varying sums, which the Commission can disburse in almost any manner whatsoever that it may choose. No relationship is stated between any of the possible amounts of contributions and any of the innumerable scales of benefits which the Commission might adopt.

In my opinion, therefore, it is impossible to certify the scheme as being "actuarially sound." It is likewise impossible to certify it as being "actuarially unsound." An actuarial basis simply does not exist—for the possible limits of variation are so wide that no reasonable estimates of probable future experience can be made. The scheme in its present form, accordingly, can only be held to be "actuarially indeterminate."

This situation, I believe, is made even more serious by the extraordinary powers vested in the Commission, to which I have already referred—for those powers render the financial implications of the plan even more unmeasurable. Subject only in certain cases—not in all cases—to the approval of the Lieutenant-Governor in Council, the Commission is to be almost entirely a law unto itself, backed by severe punitive powers, against which the citizen is apparently to have no right of appeal. The following provisions of the Act are extremely enlightening in this connection:

(1) The Commission, of five, can function perfectly so long as it can muster a quorum of only two of its members.

(2) Even if the suggested "Technical Advisory Council" should be appointed—and its establishment is not obligatory—the Commission can ignore its advice completely.

(3) The Commission may "penalize any person . . . who fails to provide services according to the standards prescribed by the Commission . . . by debarring him . . . from all rights of serving or of providing benefits . . . under this Act."

(4) "The Commission shall have the like powers as the Supreme Court for compelling the attendance of witnesses and of examining them under oath," etc.

(5) "The Commission shall have exclusive jurisdiction to inquire into, hear, and determine all matters and questions of fact and law arising under this Act, and no proceedings by or before the Commission shall be restrained by injunction, prohibition, or other process or proceeding in any court, or be removable by certiorari or otherwise into any court."

(6) "The Commission shall have full discretionary power at any time to re-open, re-hear, and re-determine any matter which has been dealt with by it."

(7) Every person is to become subject to a fine up to $500 who even "neglects to perform or observe any duty or obligation imposed on him" by the Act; the Commission may by regulation itself prescribe fines up to $50; and the Commission may impose upon any monetary defaulter "such a percentage upon the sum in default as may be prescribed by the Commission"; and lastly,

(8) "Where default is made by any employer or person in the payment . . . of any sum of money . . . the Commission may issue its certificate stating the sum so required to be paid . . . and such certificate, or a copy of it . . . may be filed with the Registrar of the Supreme or any County Court, and when so filed shall become an order of that Court and may be enforced as a judgment of the Court."

It would seem that the implications of these provisions should be realized more widely than appears to be the case.

### THE APPROACH TO A CONSTRUCTIVE POLICY

I have dealt with the preceding matters at some length because they obviously fall within the title of this address since they influence directly the financial arrangements and obligations implied by any such scheme of compulsory health insurance. Some of these observations, admittedly, are open criticisms. I sincerely trust, however, that you will understand that they are not meant to be merely destructive. Criticism, whenever possible, should be constructive. I should therefore like to submit the following suggestions, which, I believe, in the light of the experiences of other similar plans both in Canada and elsewhere, should form the basis of any attempt to establish a scheme of compulsory health insurance, and which might well lead to its successful operation.

(1) The plan ought not to be conceived as a punitive measure, predicated on the supposition —as I have heard it stated—that the medical profession and all its ancillary services are now organized on a wrong foundation, which must be compelled to undergo improvement by being brought under the rule of a wholly non-medical Government Commission. The basis of approach should preferably be to recognize the devotion and sincerity of those who take the Hippocratic oath, and who so often give almost every moment of their lives in their attendance on the sick, whether rich or poor.

(2) As the very first step, the plan should reach a clear and honorable agreement with all those indispensable groups—doctors, nurses, druggists, hospital officials, and laboratory technicians —without whose co-operation any such plan must be foredoomed to failure.

(3) Adequate provisions should be included for administrative control by a non-political Commission of practical and fully qualified men, thoroughly experienced in medicine, insurance administration and claim supervision, and finance. An "Advisory Council," moreover, should be mandatory, and should function in such a manner (as in the cases of the Advisory Committees under the British and the 1935 Canadian unemployment insurance schemes) that its recommendations cannot be ignored.

(4) Definite provisions should be included for the refereeing of disputed claims and controversial and administrative questions, with adequate machinery for the judicial determination of all such matters, and for appeals, so that no single body, whether political or non-political, should have any opportunity for the exercise of arbitrary powers.

(5) Provision should be made for proper certification, by a fully qualified actuary, of the original scales of contributions and benefits, which should be specifically stated, and also for the certification of any changes in those stated benefit and contribution scales, so that every financial adjustment of the plan should be explored adequately and reported on publicly prior to its adoption, to the end that the beneficiary may have some reasonably close idea of the benefits which he may expect to receive, and employers and employees may know how their funds are to be used.

### THE PLACE OF "HEALTH INSURANCE" IN CO-ORDINATED "HEALTH SERVICES"

If the problem could be approached carefully along these lines, with all the emphasis upon the rights both of the persons to be insured and those who would be called upon to provide the services, and also with the most complete elimination possible of every political influence and opportunity for arbitrary control, then it might well be that the present organization of the "medical services"

—using that term in its widest sense—could be rendered more effective. But, in order to attain any such objective, I should like again to direct your attention to the fact that the usual types of government-sponsored "health insurance" fail entirely to reach several of the most important basic aspects of the real problem which is involved.

It is important to remember that these governmental "health insurance" plans are essentially an attempt to provide medical services through a system of regularized payments in advance. But they do so only for a special group of persons, and then only during a certain period of their lives; they leave out of consideration entirely not only all the rest of the community, but even the special group itself almost immediately the insured person ceases to stand in the particular relationship to some "employer" of being an "employee" of an arbitrarily specified earning power, or that employee's dependent. What is there, moreover, in the figure of $1800 per annum, which calls for the provision of a government-regulated medical service for those earning up to that amount, while the person earning $1801 per annum or more, or not earning anything at all, is to be excluded?

All these plans, of course, are in reality attempts to improve the conditions under which medical services shall be available. But I think it may be asked, most appropriately, whether they do not begin at the wrong end of the problem. The fact that I have explained "actuarial soundness" at some length is not, of course, special pleading in any sense—for the real problem involved is, in my opinion, hardly "actuarial" at all. It is, as I have suggested on a number of previous occasions, essentially a "public health" matter, to be settled according to obvious principles of common sense. I would ask you to recall the manner in which we permit uncontrolled birth, provide only partial health supervision during the school years, and then allow the adult to impair his health in any way he chooses — through misfortune, ignorance, carelessness, or abuse; and then, when people of all classes thus eventually fall ill, the "health insurance" plan suggests that only a special class of them shall be assisted, in respect of certain particular types of illness, and for an arbitrary length of time. Is not that illogical? Does it reflect much credit on our statesmanship? Yet we insist—rightly—upon universal education. Why do we not insist, even more rightly, on *co-ordinated* efforts to attain a better state of *general* health? A healthy but uneducated person—who at the least will probably grow up as one of "Nature's gentlemen," imbibing his knowledge from a contemplation of the wonders and beauties of the Universe—will surely be a sounder, safer, and a better citizen than the unfortunate descendant of a bad heredity, doomed from infancy to bear throughout a miserable life the failings of incompetence and disability. What do I mean by "co-ordinated efforts to attain a better state of general health"? I mean emphasis first of all on intelligent maternity, on health education, on periodical health examinations, on sickness registration, and on proper physical and mental recreation—in short, emphasis on prevention rather than cure—and for *all* the people—not merely for a special group earning up to $1800 per annum or some other arbitrary figure.

I am not intending to suggest, even remotely, any form of "state medicine," under which the physicians and others engaged in the medical services would become merely salaried employees of the state. I do, however, believe that the co-ordination and enlargement of the preventive services, for all the people, could do much more to eliminate illness, to prevent its spread, and to control its ill effects than we have yet realized. "Health insurance"—not necessarily in the stereotyped and limited form which we now generally discuss, and not only, perhaps, for a special group during a limited time—might then be able to deal more advantageously with the residual sickness which the preventive measures had not been able to control. Under such circumstances a "Health insurance" scheme, conforming with sound insurance principles, could take its proper place as an essentially curative agency, at greatly lessened cost. Even if the saving were wholly absorbed by the preventive services which I have suggested, we should in reality be much more prosperous—physically and spiritually — and much more capable of exhibiting any efficiency which we might inherently possess.